

CONSERVATION AND MANAGEMENT PLAN FOR BLACKBUCKS (*ANTILOPE CERVICAPRA*) OF BALLIPADAR-BHETANAI WILDLIFE RESERVE, ORISSA

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ABSTRACT

The Ballipadar-Bhetnai Wildlife Reserve of Orissa presents an unique example of human-blackbuck (*Antilope cervicapra*) relationship where animals are protected mainly through socio-religious conservation methods. Crop damage by these animals is of regular occurrence in this area for which farmers are aggrieved, but the old people are of the belief that it is a sacred animal increasing fertility of the cultivated land which is the main reason for blackbuck conservation. As their conservation is highly appreciated for their scientific significance and educational value, some direct and indirect suggestive protection measures for the blackbucks are envisaged.

Key words: Antelope, blackbuck, wildlife

INTRODUCTION

The blackbuck (*Antilope cervicapra*) is an elegant creature of Indian origin. It has a legendary place in Indian religion and culture but destined to extermination by civilised man. In 1952, the Indian Board for Wildlife included blackbuck among 36 animals listed as in need of protection (Sarkar, 1975) and is also listed as an endangered species in the IUCN Red Data Book. The blackbuck is a Scheduled-I animal as per Wildlife (Protection) Act, 1972 and included in Appendix-I of CITES (Jhala, 1993).

Conservation of blackbuck is highly appreciated for its scientific significance and educational value, for propagating the species and the pleasure it gives to naturalists. It will be very painful if this beautiful animal vanishes for ever from this earth. This antelope is a distinctive feature of

Indian plains. The protection of this animal depends mainly upon the people of the area where blackbucks occur.

The Ballipadar-Bhetanai Wildlife Reserve represents a unique example of human-blackbuck relationship where animals are conserved through socio-religious conservation methods for last many years. At the same time serious crop damage has also been recorded for which people are bound to go against the conservation laws. Therefore, some protection measures have been suggested to protect these animals from extinction and payment of compensation to the farmers towards damage of crops.

HISTORY

For the last several generations, the blackbucks of this area are protected by the local people. Around 1918 a Britisher known as "Green Saheb" caused the death of a buck. Later, he surrendered to the Sardar of the locality, Madeshi Chandramani Dora and requested him to publish a notification in the newspaper prohibiting the killing of blackbucks of the area. Accordingly, a notice had appeared in 1918 in an issue of the Oriya newspaper "Prajamitra". Since then, the blackbucks of the area have found a heaven for them. The local villagers have tried to create a public awareness to protect them, as a result of which, the blackbucks have spread to the nearby villages. Today, more than 30 villages of Buguda and Aska Ranges of Ganjam are inhabited by the antelope species.

STUDY AREA AND METHODS

The Wildlife Reserve is situated between 19°35'-19°55' N and 84°35'-84°50' E, covering an area of 72.80 sq kms. A road about 25 kms long, North to South, bypasses the blackbuck inhabiting area and four villages : Buguda, Ramanda, Ballipadar and Bhetanai. It is constituted of 60-65% of cultivated land. The major cultivated crops are *Oryza sativa* (paddy), *Eleusine coracana* (ragi), *Phaseolous mungo* (moong) and *Cajanus cajan* (pigeon pea).

Interaction between blackbucks with local people was studied through interviews. The farmers closely associated with blackbucks provided a good deal of information about the behaviour of the antelope.

OBSERVATIONS

Agricultural Damage

Crop damage in this area is of regular occurrence which leads to human-blackbuck conflict. Crops like *ragi* and *moong* are severely attacked and it makes the farmers' life miserable especially when they raid the field in groups. The harvested paddy in the field are considerably affected. About 90% damage is made to cashew-nut plants of height 3-7' and girth 1-2". The blackbucks cause damage by rubbing their heads against the plants. The effect of damage is more in core area than in the buffer area. Interference of domestic animals sharing the habitat during the day causes a stress on blackbucks as a result of which they raid the crops during night.

Socio-religious Relationship

The blackbucks are found very close to human settlements from time immemorial. In this region, they have a socio-religious relationship with man. Due to increase in human population and severe poaching, now blackbucks are seen only in some isolated pockets and they are completely protected by the local people with religious sentiments. The old people generally believe that fertility of the cultivated land is increased due to the presence of the blackbucks. They also believe that grazing in less number stimulates plant growth, but in a high number, they cause severe crop loss.

CONSERVATION MEASURES

Disturbances from cultivators, invading cattle and use of automobiles increase stress on the life of blackbucks. Firecrackers and unusual sounds also restrict their movement. The main reason for the decline of populations in blackbuck can be traced directly or indirectly to the intervention of man. Not only greater protection should be provided to their natural habitats but as a safeguard, zoobanks should be created. This implies that viable breeders should be maintained in zoological parks and when sufficient stocks are raised, the populations could be introduced into their declining natural habitats. Establishment of protected areas is indispensable for conservation of wildlife. This prevents irreversible damage

to our natural heritage, which safeguards the habitat's sustainable use of different species and provides good opportunities for scientific research, education, recreation and tourism.

The blackbucks generally inhabit secluded areas with sufficient vegetation and never leave the place unless there is shortage of food and interference of man and domestic animals. Therefore, the habitats of blackbuck populations should not be shared by domestic animals. It is suggested that wildlife has to be protected in isolation as local communities are considered dangerous to them. Therefore, it is not easy to maintain habitats of blackbucks in the proximity of human settlements. Protected areas need careful evaluation with regard to their suitability from the view point of habitat and protection potential. On the otherhand, many forest dweller communities, for centuries, have used forests sustainably and kept a balance between human and environmental needs and thus protecting the blackbucks (Fernades, 1997).

Increase in human population leads to conversion of cultivated land for road and house construction creating heavy stress on blackbuck's habitat. Therefore restricted residential plots should be made and development of industrial settlements should be prohibited in and around the Reserve.

There should be fencing of the blackbuck area to protect them against domestic cattle and predators. Generally 1.2 to 1.4 metre high wire mesh is made for them but high fencing is still recommendable. Chain fencing and electro-fencing are also recommended. Use of wire meshes to protect cashew-nut seedlings with appropriate height is advisable.

The blackbucks generally prefer *ragi* and *moong* crops and raid them completely. The attack to paddy crop which escapes damage at early stage of growth, is susceptible during harvesting period. Therefore one should remain vigilant during the cropping season (Chauhan and Singh, 1990). Raid of important crop fields can be avoided by planting less susceptible crops like *khesari* (*Lathyrus sativus*) and *til* (*Sesamum indicum*). The farmers should invest less input for cultivating rich crop and concentrate on schemes of planting suitable horticultural crops, bee-keeping and orchid

farming on the land adjoining blackbuck habitat. Appropriate evaluation of crop damage and regular supply of subsidised seeds and fertilisers to the affected farmers would be one of the important suggestive measures for conservation.

Public awareness and people's participation for blackbuck management is very necessary (Sharma, 1994). Regular camps should be installed to enrich people's idea about the conservation programme. Teaching through audio-visual aids in educational institutions is required to provide them the importance of blackbuck conservation.

The Panchayat Raj Institutions have existed for long in India which play an educative role in environmental matters. These institutions will play their legitimate role in environment protection. The most effective method of conservation is to hand over the power to these institutions with full training in wildlife conservation.

It is felt necessary to develop wildlife tourism as it has got immense commercial value for which government should fix an entry fee for passing vehicles for the improvement of Reserve area. Government should not encourage construction of massive tourism complexes and instead go in for low cost tourist lodges. The local educated youth could be trained and employed as tourist guides and wildlife guards. Enforcement staff should be recruited from local people as they would take more interest to safeguard their crop fields and also to protect blackbucks.

Local people, sociologists, biologists, naturalists and economists all could put their heads together and find out some acceptable solution to the problem. People seldom realise that rural community have profound knowledge on the eco-system of their area and also on the behaviour of the wildlife. Hence it is very essential to associate the rural people in discussions on wildlife conservation. The involvement of non-government organisations to convince the people about the need for conservation programme is also necessary.

Majority of the rural people are small land holders with low per-capita income and therefore the local government should include more

people of this area under poverty elevation programme like IRDP, JRY and PMRY etc. Soft loans should be given to the poor farmers through banks and cooperative societies for multiple cropping which ultimately will make them self sufficient so far as their livelihood is concerned and this is no doubt an indirect way of creating interest in wildlife protection in the mind of the rural people.

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